U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Wood River Sulfuric Acid Release - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #1**
Wood River Sulfuric Acid Release

Wood River, IL, IL
Latitude: 38.8512892 Longitude: -90.0985253

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From: Adam Vrabec, Federal OSC
Date: 6/4/2021
Reporting Period: 06/3/2021 to 06/04/21

1. Introduction

1.1 Background

Site Number:		**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	6/3/2021	**Start Date:**	6/3/2021
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Release of spent sulfuric acid from 4 rail cars staged on a railroad siding. The release occurred on June 2, 2021 and involves four tank cars of spent alkylation sulfuric acid.he release occurred on a set of railroad tracks operated by Norfolk Southern. Local fire departments continue to spray water on all four rail cars to control the release of spent sulfuric acid venting sulfur dioxide.

Based on a review of the safety data sheet for spent alkylation sulfuric acid, the following were identified as for Site-specific COCs of sulfuric acid and sulfur dioxide (SO2).

1.1.2 Site Description

The site is located approximately .5 miles to the North of 170 Rand Avenue, Wood River, IL 62048 in Madison County. GPS locations are 38.8512892197, -90.0985253443599. The release occurred on a set of railroad tracks operated by Norfolk Southern. The area to the North and East consist mainly of residential properties. To the West and South consist of commercial properties.

1.1.2.1 Location

See above

1.1.2.2 Description of Threat

On June 2, 2021 a release of Spent Sulfuric Acid occurred from the pressure relief device (PRD) resulting in the chemical migrating via air downstream and affecting several companies to the Northeast. The residential neighborhood to the East was also affected due migrating vapors. On June 3, 2021 it was discovered that three additional rail cars were experiencing high pressures resulting the PRD's going off. A

shelter in place order was issued for the neighborhood to the East.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

- IEPA, USEPA, and START responded on scene to oversee response activities and assessing the situation on the morning of 6/4/21

- Norfolk Southern had their emergency response and environmental representatives and contractors on-site, and Phillips 66 had their emergency response contractors on site

- Norfolk Southern's and Phillips 66 contractors were going down range to assess the rail cars that were causing the release and providing air monitoring in and around the incident site

- A shower curtain of water was being applied to the leaking tank cars in attempt to knock down/ supress spent sulfuric acid vapors.

- Initial NRC report described one rail car leaking, but by the morning of 6/3/21, three additional rail cars were leaking also.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Unified Command has been established consisting of Norfolk & Southern, Phillips 66, U.S. EPA and Illinois Environmental Protection Agency (IEPA) Wood River Fire Department and Madison County EMA.

2.1.2 Response Actions to Date

-24/7 air monitoring around perimeter of incident location
-24/7 water curtain being applied to leaking cars
-One scrubber unit brought in to attempt to relieve pressure of rail car #4
-Shelter in place order lifted
-Periodic pH monitoring of run-off water
-Approximately 4 millions gallons of water will have been used by 2400 hours - 6/4/21 in attempt to suppress vapors

Norfolk Southern Railway (NS) on-Site management is supported by their contractor for real-time air monitoring activities, results, and observations from real-time air monitoring performed in relation to a release of spent sulfuric acid resulting in venting sulfur dioxide .

Six stationary remotely-monitored real-time air monitoring data from six monitoring locations around the perimeter of the site, and maintained the instruments at each location throughout the monitoring period. Also, roving teams manually record real-time air monitoring data using hand-held instruments throughout the surrounding community and at the Site perimeter.

Real-time air monitoring is used primarily as a screening tool to quickly indicate the presence of elevated airborne concentrations of Site-specific COI for the purpose of alerting Site personnel, and members of the public to potentially changing conditions in the work environment.
Real-time air monitoring activities and strategies were performed in accordance with the Site-specific Air Monitoring Plan (AMP) was developed and reviewed by a certified industrial hygienist (CIH).

Honeywell RAE Systems AreaRAE monitors (AreaRAE) equipped with an electrochemical sensor specific for SO2. Each stationary air monitoring instrument was deployed approximately 4.5 feet above the ground to represent the air quality within the typical breathing zone of personnel in the area. Using radio telemetry, readings for each stationary air monitoring instrument were transmitted to a host computer for simultaneous monitoring from a central location.

During this monitoring period the stationary air monitoring system recorded over 55,167 real-time air monitoring readings for SO2. From the initial deployment on June 3, 2021 through the end of this current monitoring period the stationary air monitoring system has documented over 55,258 real-time air monitoring readings for SO2.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Notice of Federal Interest in a threat of Hazardous Release Incident issued to Norfolk Southern

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

As of 1800 hours on 6/4/21:
-The four tank cars still continue to release material into the atmosphere via the PRD's and components under the dome lid
-Fire Department continuing to place water curtain on leaking tank cars
-USEPA, GHD, CTEH, Phillip 66, Fire departments continue to do 24/7 air monitoring around perimeter of incident location
-Unified Command continues to operate 24/7
-USEPA plans to collect water sample from pooled area near leaking cars

-Continue monitoring pH of run-off

2.2.1.1 Planned Response Activities
Same as 2.2.1 (above)
2.2.1.2 Next Steps
Same as 2.2.1 (above) until all four cars quit off gassing and return to atmospheric pressure
2.2.2 Issues
As night falls and temperatures start dropping and air inversions start, elevated readings have been observed with air monitoring resulting in shelter in place orders and road closures. Once day break and temperatures rise, readings significantly drop or zero off. This has occurred the mornings of 6/4/21 and 6/5/21

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative
Not applicable

2.5 Other Command Staff

2.5.1 Safety Officer
Rotating Unified Command
2.5.2 Liaison Officer
Rotating Unified Command
2.5.3 Information Officer

3. Participating Entities

3.1 Unified Command
yes
3.2 Cooperating Agencies
USEPA, IEPA, Norfolk Southern, Phillips 66, Madison County EMA, Wood River Fire Department

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.


EPA